REMARKS

The Applicants have carefully studied the Final Office Action in this case. The present preliminary amendment is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

1. Claims

The Applicants have amended claims independent claims 1, 11, and 35. Pending in this application are claims 1-42. These amendments, Applicants submit, adopts pertinent limitations from claims that have been objected to as dependent from a rejected base claim but otherwise allowable. Specifically, claim 7, which was objected to as drawn from a rejected base claim, called for establishing the PI, *inter alia,* by drawing connecting lines between a given sector origin and adjacent sector origins and the establishing perpendicular bisectors, which necessarily calls for establishing the geographic distance between the given sector origin and adjacent sector origins and using such distance to establish the PI. *See also* description at p. 10 of the specification.

2. Response to Anticipation Rejection

The Examiner has rejected previously pending claims 1-5, 11-15, 21-22, 28-33, 35-37 and 42 under 35 U.S.C. § 102 as being anticipated by Stead (U.S. Patent Pub. No. 2002/151313 A1); claims 6, 8, 9, 15, 18, 23 and 25 as obvious over Stead in light of LeBlanc (U.S. Patent No. 5,508,707); and claim 34 as obvious over Stead in light of Jacobson (U.S. Patent No. 6,466,796). Citing the disclosure on page 7 of the specification, the Examiner has found that a "polygon of influence" is not limited to a polygon in which substantially all points are closer to the origin of the sector than to the origins of any adjacent sector, but rather can include a polygon established,

as in Stead and LeBlanc, by radio frequency ("RF") measurements. Nor, as found, by the Examiner, does the limitation "determining a polygon of influence of the given sector with respect to at least one other sector" preclude the polygon of influence from being established by RF measurements as taught in Stead and LeBlanc.

As amended, the inventions recited by claims 1-42 are directed to methods and systems for communicating a geographic location of a given sector in a cellular wireless system, *inter alia*, by determining a "polygon of influence" of a designated origin of the given sector with respect to a designated origin of at least one other sector where such "polygon of influence" is established "by determining the geographic distance between an origin of said sector and an origin of each adjacent sector and, based on that distance, plotting one or more edge lines for the polygon of influence."

Neither Stead or LeBlanc teach or suggest establishing a polygon of influence by determining the geographic distance from the origin of the sector to adjacent sector origins and using that distance to plot one or more edge lines of the polygon. To the contrary, both of these references teach away, by requiring that RF measurements by used to establish the polygon of influence:

> [0039] A shape algorithm is used to turn empirical data into shapes. The input to the algorithm is a series of RF measurement. Each RF measurement contains at least three pieces of information:
>> [0040] 1. received signal strength (in dBm)
>> [0041] 2. a cell/sector identifier
>> [0042] 3. a location (latitude, longitude, in degrees)
> [0043] RF measurement equipment provides the first and third pieces of information. ***
> [0044] The output of the shape algorithm is a polygon associated with each Sector in the wireless network.

Stead, ¶¶ 39-44.

For each of the base stations, a plurality of RF measurements are determined in cooperation with the receiver, including the link budget of the base station for a predetermined plurality of distances and directions. The determined RF measurements for each of the base stations are modeled as a scaled contour shape having minimum and maximum boundaries and which is capable of being projected on a mapping system such as an orthophotograph. The base station which neighbor the mobile unit are thereafter determined so as to define a first bounding polygon area by their intersecting contours. The first bounding polygon area generally describes the relative position of the mobile unit.

LeBlanc, Col. 8, lines 41-43

As such, none of the cited art uses such a polygon of influence established by determining the geographic distance between an origin of said sector and an origin of any adjacent sector and, based on that distance, plotting one or more edge lines for the polygon of influence, as required by each of the independent claims as amended. Although the "location" information described in Stead could theoretically be used to establish the distance between adjacent sector origins and to then establish an edge line of a polygon, Stead teaches away from using the geographic distance between adjacent sector origins to plot such edge lines of a polygon. To the contrary, Stead teaches that the location information must be fed into a "shape algorithm" along with "RF measurements" and "a cell/sector identifier" to determine a polygon. At no point does Stead teach the use of the location information to determine the geographic distance between sector origins, and then use that distance to plot a polygon.

Thus, claims 1, 11, and 35, like claims 7, 17, 19, 24 and 38-41, now contain limitations that clearly differentiate these claims from the prior art. Although the specific steps recited in claims 7, 17, 19, 24 and 38-41 for using the geographic distance between adjacent sector origins to establish the edge lines of the polygon of influence are more extensively defined, all of the claims now contain limitations that clearly distinguish the claimed methods for determining the polygon of influence from the prior art.
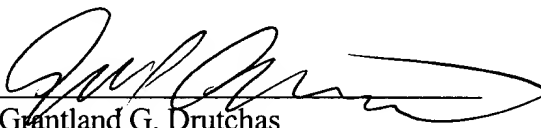
Furthermore, neither Jacobsen (U.S. Patent No. 6,466,796) or Nowak (Pub. No. 2002/0193121 A1), teach or suggest the use of a polygon of influence as claimed. As such, neither Stead, LeBlanc, Jacobson nor Nowak, alone or together teach or render obvious the claimed methods.

Therefore, Applicants submit that claims 1-42 are patentably distinct over the cited art. Applicants respectively submit that each of the pending claims is allowable and therefore respectfully requests favorable consideration of the application claims.

Respectfully submitted,

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